HF Happenings 955

Operating Tip

Read The Rules - "...being familiar with a contest or an event's rules could reduce newbie questions by about half. And make them more successful to boot."

Learn to Listen – to the exchange given, the call sign and that QRP station calling!

The SARL Wednesday 80 m Club Sprint

The fourth leg of the SARL Wednesday 80 m Club Sprint is on the air from 17:30 to 18:30 UTC (19:30 to 20:30 CAT) on Wednesday 21 July 2021. The exchange is a RS or RST report, the name of your Club and your 4-character grid square. Log sheets in MS Excel format must be sent to zs4bfn@mweb.co.za by 23:59 CAT on Monday 26 July.

The SARL HF Contests

The aim of the HF Contests is for participants to contact as many amateurs in Southern Africa as possible on the 20, 40 and 80 m amateur bands. The contest takes place over three Sundays in August.

The HF Phone contest runs from 14:00 to 17:00 UTC (16:00 to 19:00 CAT) on Sunday 1 August 2021 with activity between 14 125 to 14 300 kHz, 7 063 to 7 100 and 7 130 to 7 200 kHz and 3 603 to 3 650 and 3 700 to 3 800 kHz.

The exchange is a RS report and a consecutive serial number starting at 001. You can participate as a Single Operator Single Radio - Single Band or a Single Operator Single Radio - All Band station with the

July

19 - Provincial schools open (but then the 'government' changed its mind!)
20 - PEARS and Border ARC meetings
21 - SARL 80 m Club Sprint
24 - Full Moon; CTARC meeting; 24 and
25 - RSGB Islands on the Air contest
26 – Maybe the provincial schools open today!
27 - Secunda ARC meeting
28 and 29 - Delta Aquarids MS

August

1 – the SARL HF Phone contest
7 - Durban ARC meeting
8 – New Moon
9 – National Women's Day; SARL YL Sprint; West Rand meeting
12 - International Youth Day
12 and 12a - Perseids MS
12a - Namibia schools close
14 - SARL Youth Sprint
14 and 15 - WAE CW contest
15 – SARL HF Digital contest
17 - PEARS and Border ARC meetings
21 - Magalies and Highway ARCs meeting
21 and 22 - International Lighthouse Weekend
22 – Full Moon
28 - CTARC meeting; SARL 40 m Grid Square sprint

overlays 'Young Lady' and 'Youth.' You and fellow amateurs or your Club can participate as a Multi Operator Single Band or a Multi Operator All Band station.

The scoring has changed! One (1) point for a phone QSO; 1½ points for a digital QSO (15 August) and 2 points for a CW QSO (29 August).

Submit your log in ADIF, Cabrillo or MS Excel spreadsheet (preferred) by 23:59 CAT on Friday 6 August 2021 by e-mail to zs4bfn@mweb.co.za. PLEASE NOTE: the Cabrillo and ADIF file carries NO contest scoring information! Please complete the summary sheet and submit it with your Cabrillo or ADIF file. When submitting your log, your call sign must appear in the file name, e.g., ZS2B SARL HF Phone Contest…. xlsx/.adi/.cbr.

The 24th Annual International Lighthouse Lightship Weekend

The 24th ILLW will take place on 21 and 22 August 2021. Visit the ILLW website for more detailed information https://illw.net/index.php. The Registration form is at https://illw.net/index.php/entry-test. The following lighthouses are registered.

- Roman Rock Lighthouse, ZA0027 operating by ZS0RR. QSL via LoTW, QRZ, OQRS via QSL manager M0OXO
- Cape Hangklip Lighthouse, ZA0010 operating by ZS1CRG. QSL via ZS1ABU
- Green Point Lighthouse, ZA0006 operating by ZS1CT. QSL via the SARL Bureau, LoTW, direct to the Cape Town ARC
- Cape St Blaize Lighthouse ZA0026, Mossel Bay operating by ZS1SKR, the Southern Cape ARC
- Danger Point Lighthouse, ZA0005 operating by ZS1OAR. QSL direct PO Box 7, Swellendam, 6740
- Cooper Lighthouse, ZA0004 operating by ZS5D. QSL via the operators' instructions

Garth, ZS5GMW is busy getting information about the Umhlanga Rocks Lighthouse. Dennis, ZS2B is waiting for the Portnet Authority about the Great Fish Lighthouse, ZA0024.

YASME Foundation Supporting Grant

The Board of Directors of the Yasme Foundation has announced that it has made an additional grant to the Maranyundo School in Rwanda and their Makerspace program. This grant provides access to material from ARRL's Virtual Teachers Institute and funds to purchase material and supplies for classroom experiments. Earlier this year Yasme supplied the school with amateur radio related books for classroom use. The Yasme Foundation (http://www.yasme.org/) is a not-for-profit corporation organized to support scientific and educational projects related to amateur radio, including DXing and the introduction and promotion of amateur radio in developing countries.

Sleep Deprivation

Sleep deprivation has real consequences. According to an article in Neuroscience News https://neurosciencenews.com/sleep-mental-physical-health-18874/, just three sleepless nights can lead to an "increase in anger, frustration, and anxiety." There were effects from as little as one sleepless night. Make sure you budget in some recovery time after a 48 hour B-I-C. B-I-C = Butt in Chair!

New Category-Overlay entry of 'YOUTH.'

There is a new CATEGORY-OVERLAY for Cabrillo files. According to Randy, K5ZD, "At the request of several contest sponsors that want to encourage and recognize youth participation, the

WWROF https://wwrof.org/ has amended the Cabrillo standard to include a new CATEGORY-OVERLAY entry of 'YOUTH.'

Full details can be found on the WWROF website https://wwrof.org/cabrillo/cabrillo-change-log/ and the Cabrillo v3 header specification has been updated to reflect this change https://wwrof.org/cabrillo/cabrillo-v3-header/.

DX from Africa

Maderia, CT3. Paul, DL5CW is going to operate the IOTA Contest as CT9/DL5CW from the Madeira Archipelago AF-014. QSL via DL5CW.

Emissions from LED lamps

Frank, NF8M, and Ward, N0AX, both noted this article about conducted emissions from LED lamps https://www.edn.com/comparing-conducted-emissions-from-led-lamps/. The author compared a batch of LED lights from 2010 to those available today. Frank noted that he thought it "surprising which one was found to be the quietest." Ward noted that "there has been some improvement." The article's author even found some lights that were so quiet that they that approached the measurement limits of his equipment.

Word to the Wise

Fan-Out - the number of inputs that can be driven (connected) to a particular output. For example, if the output of a preamplifier can reliably drive four different receivers, its fan-out is four. The term is typically applied to digital signal outputs since each driven input requires a small amount of power and can influence rise and fall times of the signal.

In-person eyeball QSO contest

If you have ever been to Contest University for the in-person eyeball QSO contest, you will appreciate this video from the YOTA Camp 2021 where the youth campers are doing their version https://www.youtube.com/watch?v=TzS_yLU2V9g. The campers had one session to get familiar with the contest format, and then a second session to make contacts under more realistic conditions. Make sure you listen for the slow scan TV sounds.

Operating Tip

Filtering for RTTY During Contests - Ed, W0YK, suggests that for normal RTTY contest conditions, a 500 Hz filter is a good choice to be able to copy stations without being bothered by adjacent stations https://www.contestuniversity.com/wp-content/uploads/2020/05/W0YK-Digital-Contesting-Hints-Kinks.pdf. For challenging conditions, 250 Hz could also be used (since RTTY tones have a shift of 170 Hz) but will sacrifice being aware of stations that may be off frequency. Ed stresses that at no time should "dual peaking" or "tone filters" be used, as they can interfere with the processing that 2Tone, MMTTY, or other decoders perform on the audio passband.

Contest Calendar

This week's contests as compiled by Bruce Horn, WA7BNM. The period covered is 19 to 26 July 2021.

Run for the Bacon QRP Contest	Participation: Worldwide
23:00 UTC 18 July to 01:00 UTC 19 July	Mode: CW
Geographic Focus: Worldwide	Bands: 160, 80, 40, 20, 15, 10 m

Classes: Single Band; All Band
Max power: 5 watts
Exchange: RST, state, province or country, member no or power
Work stations: Once per band
QSO Points: 1 point per QSO with non-member; 3 points per QSO with member on same continent; 5 points per QSO with member on different continent
Multipliers: Each state, province, or country once; Multiply mults by 2 if >50 members worked
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 25 July 2021
E-mail logs to: none
Upload log at: http://qrpcontest.com/pigrun/autolog.php
Mail logs to: none
Find rules at: http://qrpcontest.com/pigrun/

K1USN Slow Speed Test
00:00 - 01:00 UTC 19 July
Geographic Focus: Worldwide
Participation: Worldwide
Mode: CW
Bands: 160, 80, 40, 20 m
Classes: Single Op - QRP low or high
Max power: HP: >100 watts; LP: 100 watts; QRP: 5 watts
Exchange: Maximum 20 wpm - Name and state, province or country
Work stations: Once per band
QSO Points: 1 point per QSO
Multipliers: Each state, province or country once per band; W/VE do not count as country mults
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 23:59 UTC 21 July 2021
Post log summary at: http://www.3830scores.com
Mail logs to: none
Find rules at: http://www.k1usn.com/sst.html

Worldwide Sideband Activity Contest
01:00 - 01:59 UTC 20 July
Geographic Focus: Worldwide
Participation: Worldwide
Mode: SSB
Bands: 160, 80, 40, 20, 15, 10, 6 m
Classes: Single Op - QRP low or high; Overlay: Youth 26 years old or younger; Youth YL female 26 years old or younger; YL female older than 26 years
Max power: HP: 1 500 watts; LP: 100 watts; QRP: 5 watts
Exchange: RS and age group - OM, YL, Youth YL or Youth
Work stations: Once per band
QSO Points: 1 point per QSO with OM; 5 points per QSO with YL; 10 points per QSO with Youth; 15 points per QSO with Youth YL
Multipliers: Each DXCC once per band
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 01:59 UTC 21 July 2021
E-mail logs to: none
Upload log at: https://logs.wwsac.com/
Mail logs to: none
Find rules at: https://wwsac.com/rules.html

RTTYOPS Week Sprint
17:00 - 19:00 UTC 20 July
Geographic Focus: Worldwide
Participation: Worldwide
Mode: RTTY
Bands: 80, 40, 20 m
Classes: Single Op
Max operating hours: 2 hours
Exchange: other station's call, your call, serial no and your name
Work stations: Once per band
QSO Points: 1 point per QSO
Multipliers: none
Score Calculation: Total score = total QSO points
Submit logs by: 23:59 UTC 27 July 2021
E-mail logs to: rtty-week-tuesday@rttyops.com
Mail logs to: none
Find rules at: http://rttyops.com/

Phone Weekly Test – Fray

02:30 - 03:00 UTC 21 July
Geographic Focus: North America
Participation: Worldwide
Mode: SSB
Bands: 160, 80, 40, 20, 15 m
Classes: Single Op
Max power: 100 watts
Exchange: NA: Name and state, province or country; non-NA: Name
Work stations: Once per band
QSO Points: NA station: 1 point per QSO; non-NA station: 1 point per QSO with an NA station
Multipliers: Each US state including KH6/KL7 once per band; Each VE province/territory once per band; Each North American country except W/VE once per band
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 03:00 UTC 23 July 2021
E-mail logs to: none
Post log summary at:
http://www.3830scores.com
Mail logs to: none
Find rules at:
http://www.perluma.com/Phone_Fray_Contest_Rules.pdf

CWops Mini-CWT Test
13:00 - 14:00 UTC and 19:00 - 20:00 UTC 21 July and 03:00 - 04:00 UTC and 2207:00 - 08:00 UTC 22 July
Geographic Focus: Worldwide
Participation: Worldwide
Awards: Worldwide
Mode: CW
Bands: 160, 80, 40, 20, 15, 10 m
Classes: Single Op - QRP low or high
Max power: HP: >100 watts; LP: 100 watts; QRP: 5 watts
Exchange: Member: Name and member no or "CWA"; non-Member: Name and state, province or country
Work stations: Once per band
QSO Points: 1 point per QSO
Multipliers: Each call once
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 08:00 UTC 24 July 2021
Post log summary at:
http://www.3830scores.com
Mail logs to: none
Find rules at: https://cwops.org/cwops-tests/

NAQCC CW Sprint: 00:30 - 02:30 UTC 22 July
Geographic Focus: Worldwide
Participation: Worldwide
Mode: CW
Bands: 80, 40, 20 m
Classes: none
Max power: 5 watts
Exchange: RST, state, province or country and NAQCC no or power
Work stations: Once per band
QSO Points: 1 point per QSO with non-member; 2 points per QSO with member
Multipliers: Each state, province, or country once; Key Type Mult: 2 x if straight key, 1,5 x if bug, 1 x if other
Score Calculation: Total score = total QSO points x total mults x key type mult
Submit logs by: 23:59 UTC 26 July 2021
E-mail logs to: naqcc33@windstream.net and jcoreyc@gmail.com
Upload log at:
http://naqcc.info/sprint_submit_log.html
Mail logs to: none
Find rules at:
http://naqcc.info/scoreboard.php?sprint_name=202107

RTTYOPS Week Sprint
17:00 - 19:00 UTC 22 July
Geographic Focus: Worldwide
Participation: Worldwide
Mode: RTTY
Bands: 80, 40, 20 m
Classes: Single Op
Max operating hours: 2 hours
Exchange: other station's call, your call, serial no and your name
Work stations: Once per band
QSO Points: 1 point per QSO
Multipliers: none
Score Calculation: Total score = total QSO points

Submit logs by: 23:59 UTC 29 July 2021
E-mail logs to: rtty-week-thursday@rttyops.com
Mail logs to: none
Find rules at: http://rttyops.com/

RSGB 80 m Club Data Championship
19:00 - 20:30 UTC 22 July
Geographic Focus: United Kingdom
Participation: Worldwide
Awards: United Kingdom
Mode: RTTY, PSK
Bands: 80 m Only
Classes: none
Exchange: RST and serial no
QSO Points: 1 point per QSO
Multipliers: none
Score Calculation: see rules
Submit logs by: 23:59 UTC 23 July 2021
Upload log at: http://www.rsgbcc.org/cgi-bin/hfenter.pl
Mail logs to: none
Find rules at: https://www.rsgbcc.org/hf/rules/2021/r80mcc.shtml

EACW Meeting
19:00 - 20:00 UTC 22 July
Geographic Focus: Spain
Participation: Worldwide
Mode: CW
Bands: 80, 40 m
Classes: Single Op
Exchange: EACW Member: RST, member no and Nickname; EA non-Member: RST, Nickname and EA province; non-EA: RST, Nickname and DXCC prefix
Work stations: Once per band
QSO Points: 1 point per QSO
Multipliers: none
Score Calculation: Total score = total QSO points
Submit logs by: 23:59 UTC 24 July 2021
E-mail logs to: none
Post log summary at: http://www.3830scores.com
Mail logs to: none
Find rules at: https://www.eacwspain.es/sample-page/eacwmeeting/

QRP Fox Hunt
01:00 - 02:30 UTC 23 July
Geographic Focus: United States
Participation: Worldwide
Mode: CW
Bands: 20 m Only
Classes: Single Op - fox or hound
Max power: 5 watts
Exchange: RST, state, province or country, name and power output
QSO Points: 1 point per QSO
Multipliers: none
Score Calculation: Total score = total QSO points
Submit logs by: 02:30 UTC 24 July 2021
E-mail logs to: see rules
Mail logs to: none
Find rules at: http://www.qrpfoxhunt.org/summer_rules.htm

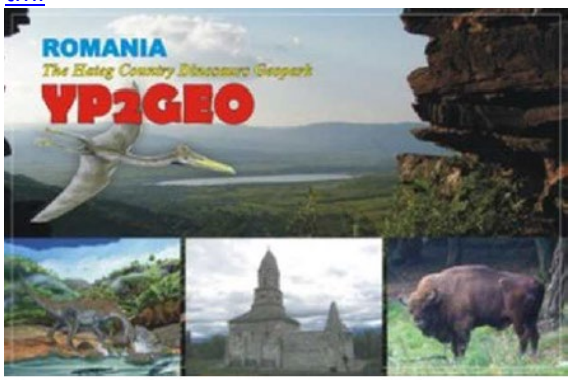
NCCC RTTY Sprint
01:45 - 02:15 UTC 23 July
Geographic Focus: North America
Participation: Worldwide
Mode: RTTY
Bands: see rules
Classes: none
Exchange: Serial no, name and QTH
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 25 July 2021
E-mail logs to: none
Post log summary at: http://www.3830scores.com/
Mail logs to: none
Find rules at: http://www.ncccsprint.com/rttyns.html

NCCC Sprint
02:30 - 03:00 UTC 23 July
Geographic Focus: North America
Participation: Worldwide

Mode: CW
Bands: see rules
Classes: none
Exchange: Serial no, name and QTH
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 25 July 2021
E-mail logs to: none
Post log summary at:
http://www.3830scores.com/
Mail logs to: none
Find rules at:
http://www.ncccsprint.com/rules.html

K1USN Slow Speed Test
20:00 - 21:00 UTC 23 July
Geographic Focus: Worldwide
Participation: Worldwide
Mode: CW
Bands: 160, 80, 40, 20 m
Classes: Single Op - QRP low or high
Max power: HP: >100 watts; LP: 100 watts; QRP: 5 watts
Exchange: Maximum 20 wpm - Name and state, province or country
Work stations: Once per band
QSO Points: 1 point per QSO
Multipliers: Each state, province or country once per band; W/VE do not count as country mults
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 23:59 UTC 25 July 2021
Post log summary at:
http://www.3830scores.com
Mail logs to: none
Find rules at: http://www.k1usn.com/sst.html

RSGB IOTA Contest
12:00 UTC 24 July to 12:00 UTC 25 July
Geographic Focus: Worldwide
Participation: Worldwide
Mode: CW, SSB
Bands: 80, 40, 20, 15, 10 m
Classes: Single Op - 12 hrs Island fixed, Island DXpedition or world - CW, SSB or mixed - QRP low or high; Single Op - 24 hrs Island fixed, Island DXpedition or world - CW, SSB or mixed - QRP low or high; Single Op Assisted - 12 hrs Island fixed, Island DXpedition or world - CW, SSB or mixed - QRP low or high; Single Op Assisted - 24 hrs Island fixed, Island DXpedition or world - CW, SSB or mixed - QRP low or high; Multi-Single - Island fixed or Island DXpedition - QRP low or high; Multi-Two - Island fixed or Island DXpedition - QRP low or high
Max power: HP: 1 500 watts; LP: 100 watts; QRP: 5 watts
Exchange: RST, serial no and IOTA no, if applicable
Work stations: Once per band per mode
QSO Points: see rules
Multipliers: Each IOTA reference once per band per mode
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 12:00 UTC 30 July 2021
E-mail logs to: none
Upload log at: http://www.rsgbcc.org/cgi-bin/hfenter.pl
Mail logs to: none
Find rules at:
https://www.rsgbcc.org/hf/rules/2021/riota.shtml



ARS Flight of the Bumblebees
17:00 - 21:00 UTC 25 July
Geographic Focus: North America
Participation: Worldwide
Mode: CW
Bands: 40, 20, 15, 10 m
Classes: Home-Based; Bumblebee
Max power: 5 Watts
Exchange: Home: RST, state, province or country and power; Bumblebee: RST, state, province or country and Bumblebee no
Work stations: Once per band
QSO Points: 1 point per QSO
Multipliers: none
Score Calculation: Total score = total QSO points x total Bumblebees x 3
Submit logs by: 8 August 2021
E-mail logs to: ARSBumblebees@gmail.com

Mail logs to: none
Find rules at:
http://www.arsqrp.blogspot.com/

K1USN Slow Speed Test
00:00 - 01:00 UTC 26 July
Geographic Focus: Worldwide
Participation: Worldwide
Mode: CW
Bands: 160, 80, 40, 20 m
Classes: Single Op - QRP low or high
Max power: HP: >100 watts; LP: 100 watts; QRP: 5 watts
Exchange: Maximum 20 wpm - Name and state, province or country
Work stations: Once per band
QSO Points: 1 point per QSO
Multipliers: Each state, province or country once per band; W/VE do not count as country mults
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 23:59 UTC 28 July 2021
Post log summary at:
http://www.3830scores.com
Mail logs to: none
Find rules at: http://www.k1usn.com/sst.html

QCX Challenge
13:00 - 14:00 UTC and 19:00 - 20:00 UTC 26 July and 03:00 - 04:00 UTC 27 July
Geographic Focus: Worldwide
Participation: Worldwide
Mode: CW
Bands: 160, 80, 40, 20, 15, 10 m
Classes: Single Op
Max power: HP: >5 watts; QRP: 5 watts
Exchange: RST and Name and state, province or country and Rig
Work stations: Once per band
QSO Points: 3 points per QSO with QCX station; 1 point per QSO with non-QCX station
Multipliers: none
Score Calculation: Total score = total QSO points
Submit logs by: 04:00 UTC 1 August 2021
Post log summary at:
http://www.3830scores.com
Mail logs to: none
Find rules at: http://www.qrp-labs.com/party.html

RSGB FT4 Contest Series
19:00 - 20:30 UTC 26 July
Geographic Focus: United Kingdom
Participation: Worldwide
Mode: FT4
Bands: 80, 40, 20 m
Classes: 100 W; 10 W
Exchange: 4-character grid square
QSO Points: 1 point per QSO
Multipliers: Each large locator square
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 20:30 UTC 27 July 2021
Upload log at: https://www.rsgbcc.org/cgi-bin/hfenter.pl
Mail logs to: none
Find rules at:
https://www.rsgbcc.org/hf/rules/2021/r80m_ft4.shtml

Next Week's Contests

Worldwide Sideband Activity Contest, 01:00 - 01:59 UTC 27 July
RTTYOPS Week Sprint, 17:00 - 19:00 UTC 27 July
SKCC Sprint, 00:00 - 02:00 UTC 28 July
Phone Weekly Test – Fray, 02:30 - 03:00 UTC 28 July
CWops Mini-CWT Test, 13:00 - 14:00 UTC and 19:00 - 20:00 UTC 28 July and 03:00 - 04:00 UTC and 07:00 - 08:00 UTC 29 July
RTTYOPS Week Sprint, 17:00 - 19:00 UTC 29 July
EACW Meeting, 19:00 - 20:00 UTC 29 July

QRP Fox Hunt, 01:00 - 02:30 UTC 30 July
NCCC RTTY Sprint, 01:45 - 02:15 UTC 30 July
NCCC Sprint 02:30, - 03:00 UTC 30 July
K1USN Slow Speed Test, 20:00 - 21:00 UTC 30 July
Feld Hell Sprint, 00:00 - 23:59 UTC 31 July
Russian WW Multi-Mode Contest, 12:00 UTC 31 July to 11:59 UTC 1 August
Missouri QSO Party, 14:00 UTC 31 July to 04:00 UTC and 14:00 - 20:00 UTC 1 August
SARL HF Phone Contest, 14:00 - 17:00 UTC 1 August
K1USN Slow Speed Test, 00:00 - 01:00 UTC 2 August
ARS Spartan Sprint, 01:00 - 03:00 UTC 3 August
Worldwide Sideband Activity Contest, 01:00 - 01:59 UTC 3 August
RTTYOPS Week Sprint, 17:00 - 19:00 UTC 3 August

https://sarlnewsbulletin.wordpress.com/hfhappenings/ and www.sarl.org.za/hf_happenings.asp

Items used with acknowledgement to the ARRL Letter, the ARRL DX News, the ARRL Contest Update, OPDX Bulletin, 425 DX Bulletin, DXNL Newsletter, WIA-News, the RSGB News, DxCoffee, Southgate ARC News, DX World and the Amateur Radio Newsletter

LDG Z-100A Automatic Antenna Tuner
https://www.dxengineering.com/search/product-line/ldg-electronics-z-100a-automatic-antenna-tuners/part-type/antenna-tuners

The Z-100A (LDG-Z-100A) features LDG's famous 10:1 SWR tuning range that matches dipoles, verticals, end-fed wires, G5RVs, or even off-centre-fed dipoles and Windom antennas. The updated, plug-and-play tuner works with all HF radios up to 125 watts RF output and can be interfaced with dozens of modern transceivers. The 1,5 pound (680 grams) Z-100A (0,1 to 125 W SSB/CW, 30 W Digital) goes anywhere with an HF radio: desktops, parks, islands, summits, you name it. Other perks include:

- 2,000 memories for instantaneous band changing
- Memory tuning times of 100 milliseconds to full tuning averaging six seconds
- Interfaced tuner is controlled by Icom radio Tuner button; button can be used on Tuner for other interfaced or non-interfaced brand transceivers.

The Z-100A comes with interface cable for Icom AH-4 or AH-3 compatible radios and IC-104 DC power cable for semi-automatic operation without interface. Optional interface cables are available for the Yaesu, Kenwood, and Alinco transceivers below:

- LDG-IC-105: For Alinco DX-70, DX-77, SR8T, SR9T
- LDG-IC-106: For Kenwood AT-300 Compatible
- LDG-IC-108: For Yaesu FT-891, 991A, 100, 857, 897
- LDG-IC-109: for Yaesu FTDX10, 1200, FT-950, 450
- LDG-IC-115: For Yaesu FTdx-101D, 3000

LDG Dual Analog Colour Meters

https://www.dxengineering.com/search/brand/ldg-electronics/product-line/ldg-electronics-dual-analog-color-meter-for-ftdx-101-transceivers/part-type/transceiver-remote-meters

Select from four colourful dual analogue meters for model-specific, top-of-the-line Yaesu, Kenwood, and Icom rigs that are equipped with meter output. They display S-meter, RF power, SWR, and more. Weighing only 1,5 pounds (680 grams) and measuring 8 x 4 x 4 (20 x 10 x 10 cm), they do not take up much space but deliver reliable readings and colour/brightness adjustments to suit your visual preferences. The 13,8 VDC +/-15% meters have a maximum current draw of 400 mA.

Choose from four models:

- LDG-MC-101: For Yaesu FTdx-101D/MP
- LDG-MC-990: For Kenwood TS-990
- LDG-MC-7610: For Icom IC-7610
- LDG-MC-7800: For Icom IC-7800, IC-7851

Ham Radio 101: What is an S-meter reading?

S-meter, or signal strength meter, tells operators the strength of their signal, from S1 (very weak) to S9 (extremely strong). Read more about the RST (Readability, Signal Strength, and Tone) reporting system that allows operators to let others on the air know the quality of their transmissions. https://www.onallbands.com/what-is-an-rst-system/